



NOAA Research in Arkansas



AR-4 (DeQueen)

Forecast Systems Laboratory GPS Meteorological Observing Systems

NOAA's Forecast Systems Laboratory (FSL) operates a rapidly expanding network of GPS Meteorological (GPS-Met) Observing Systems to monitor the total quantity of precipitable water vapor in the atmosphere. Currently, there are 93 systems over the contiguous 48 states and Alaska, and plans are being made to extend these observations to Hawaii, Puerto Rico, the Caribbean Islands, and Central America. Water vapor is an important but under-observed component of the atmosphere that plays a major role in severe weather events and the global climate system. GPS-Met systems provide accurate water vapor measurements under all weather conditions, including thick cloud cover and precipitation, and do so at very low cost. The major reason why this system is so economical is that the network is being developed by FSL in cooperation with federal, state and local government agencies, universities, and the private sector. The GPS stations provide high-accuracy surveying and navigation services for National defense, automated agriculture, safe land and marine transportation, government infrastructure management, and 911 emergency response services. Fortuitously, these systems can also be used for meteorology with the addition of surface weather sensors. GPS-Met systems located in Arkansas include sites operated by NOAA near DeQueen and one operated by the U.S. Army Corps of Engineers near Memphis, Tennessee. Another site to be operated near Fayetteville by the U.S. Department of Transportation is also planned. For more information please visit <http://www.gpsmet.noaa.gov/jsp/index.jsp>

For further information about these and other NOAA programs, please contact NOAA's Office of Legislative Affairs at (202) 482-4981.

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